

- 1) Claims 9 and 12 are rejected under 35 USC 112, first paragraph as containing material that was not described in the original specification. The only issue raised with regard to these claims is the improper reference to “cellulose-based” polymers in the claims, asserting that these polymers would not have an acid value greater than or equal to 100 as recited in the independent claim (Claim 1). The rejection points to the specification, page 5, line 18 through page 7, line 3 to support this position.
- 2) Claims 1, 3-5, 7-9, 11, 12, 14-16 and 21-24 are rejected under 35 USC 112, second paragraph as being indefinite. It is asserted that the language “is greater” should be changed to “greater than” to clarify this issue.

3)

Rejection Under 35 USC 103(a)

Claims 1, 3-5, 7-9, 11, 12, 14-16 and 21-24 are rejected under 35 USC 103(a) as unpatentable over Spector (US 5,883,169) in view of Fischer et al. (US 5,130,353), Albricht et al. (US 6,033,718), Beavers et al. (6,106,889), and EPO 0 819 744 A2.

RESPONSE TO THE REJECTIONS

Rejections Under 35 U.S.C. 112, Second Paragraph

Applicants had amended all claims where amendment was requested by the Examiner. Each and every issue raised under 35 U.S.C. 112, second paragraph has been addressed by the specific amendments suggested by the Examiner. All issues have been removed by the amendments requested by the Examiner, except for the issue regarding claims 9 and 12. That issue is discussed in detail below.

The material limitations in claims 1 and (9 and 12) include at least the following descriptions:

“...applying to at least one surface of a first polymeric optical element a first solvent-soluble or first solvent dispersible film... wherein said film comprises a polymer having an acid value [is] greater than or equal to 100...” (Claim 1) and

“...wherein said film comprises a polymer selected from the group consisting of acrylic polymers, polyester polymers, polyurethane polymers, polyvinyl resins, and **cellulose based polymers**...” (Claims 9 and 12, emphasis added)

It is asserted that the disclosure on pages 5-7 does not allow for “cellulose-based polymers” to satisfy the limitation of “...wherein said film comprises a polymer having an acid value [is] greater than or equal to 100...”

Applicant has amended the specification to place literal antecedent basis for the limitation of cellulose-based polymer into the specification. As that limitation was in the original claims as filed, and as the addition of acidic groups as described in the specification and prior art enables addition of acidic groups to cellulose-based polymers, the issue is now moot.

Rejection of Claims 1-16 and 21-24 Under 35 U.S.C. 103(a) As Unpatentable over Spector et al. (U.S. Patent No. 5,883,169) in View of Fischer et al. (U.S. Patent No. 5,130,353), Marias Albrich et al. (U.S. Patent No. 6,033,718), Beavers et al. (U.S. Patent No. 6,106,889), and EPO Application 0 819 744 A2.

This rejection is believed to be fairly summarized as set forth in the Office Action as follows:

- 1) The only difference between the invention as claimed and the technology disclosed by Spector et al. (U.S. Patent No. 5,883,169) is that:
 - a) Spector protects lens elements with a peelable polymeric film; and
 - b) The invention claims protection of lens elements with a soluble dissolvable polymeric film.
- 2) It is asserted to be a “conventional alternative technique for removing temporary films from polymeric ophthalmic lenses is removal by dissolving or dispersing the film with such a solvent, such as water or an aqueous solution.” (Citing Fischer et al., Marias Albrich et al., and Beavers et al., with the newly cited EPO reference showing that it is known how to add acid groups to polymers to increase acid numbers.)

3) Therefore it would have been obvious to one of ordinary skill in the art to employ such a conventional alternative technique for removal of the temporary protective film in the Spector et al. '169 method.

This rejection is respectfully traversed as it fails to meet either the legal or factual substantive minimums necessary to establish a *prima facie* case of obviousness in accordance with 35 U.S.C. 103(a). There is no disclosure of polymers having the high acid values recited originally in claim 10 and now included in claim 1. That recitation was described in the specification as providing rapid removal of the coating in water, as opposed to requiring high alkalinity solutions (as had to be used by Fischer). This performance characteristic is detailed further below, but the absence of any teaching of this limitation is asserted here to establish the unobviousness of the claimed subject matter. As no reference of record teaches soluble layers having the high acid value, and as there was no identification in the art used in the rejection that such high acid values improve the performance of the layer, especially in its ability to be removed without requiring further cleaning, the subject matter as a whole recited in claim 1 is clearly unobvious.

The rejection and the Spector reference also fails to comprehend the benefits of a solvent/dispersant removal of a film versus a stripping process (as taught by Spector). Although stripping protects against some accumulation of foreign matter on a lens surface, the use of a peelable lens provides other problems. Even though Spector suggests the addition of antistatic agents to the strippable film (column 9, lines 38-43) to prevent dust collection, the antistatic agent does not prevent static from building up on the lens surface. As is well known (e.g., from rubbing balloons, for triboelectric charging phenomena, and the like), polymeric surface are subject to charging that can attract dust and foreign matter. The application and physical removal of two polymers with respect to each other can create charge buildup, which will in turn attract particulates and contaminants. The process of Spector, even with an antistatic agent in the strippable film, can still develop triboelectric charges on the lens from the lens peeling process. Additionally, the use of adhesive tape to strip the film (e.g., Spector, column 10, lines 1-6) can

contaminate the lens with pressure-sensitive adhesive that would attract and retain contaminants and would itself act as a contaminant if it any adhesive is transferred to a lens surface.

Additionally, as the film removal of the invention is done by a wash solution (e.g., preferred in water or aqueous solution), a separate wash step of the lens surface is not necessary. This removes the need for two distinct steps in the use of he lens. Additionally, the protective step of Spector protects only a single surface, and handling of the lens during lamination would require that exposed surfaces be cleaned, even if not between laminated surfaces. The present process therefore would reduce the number of steps needed in the lamination process.

Additionally, the use of certain water-soluble or water-dispersible polymers (e.g., poly(vinyl alcohol), amylose or amylopectin films, starch films, etc.) would be disposable directly into water waste streams and would be minimally polluting or non-polluting according to many industrial standards. The solid stripped film of Spector must become solid waste product, requiring additional handling and disposal.

The Fischer coating is not a mild alkaline coating solution. Unlike the coating recited in the claims with a high acid value, the detergent to remove the Fischer coating must be provided externally. The coating of Fischer was intended for an entirely different purpose, imbibition and mass transfer from the layer to another layer, for which reason it is not well suited for the cleaning purposes and protection purposes of the invention. The Fischer coating is cellulosic, and as such it is a nonionic material, not a base neutralized anionic polymer, for which reason it will have disadvantages when used as a temporary protective coating. Even though the present invention allows for the use of certain cellulosic materials, those must be provided with the high acid number recited in claim 1, and this excludes the polymers shown by Fischer. The problems with those se polymers of Fischer are as follows:

1. The Fischer coating will be a poor cleaning agent for the lens. In the practice of the present invention, this cleaning function is a major benefit to our coating since anionic detergents (that may be included in the polymers) are superior foamers as well as chelation agents thus making them excellent for lifting and suspending particles in solution.

2. In US 5,130,353, their coating necessitates the use of a detergent for removal because, while their vehicle may be water swellable, it is not truly water soluble or readily dispersible for which reason it can not be removed with pure water. Due to the lesser water solubility of the cellulosic material as compared to the high acid polymers (e.g., the anionic polymers) of our coating, there is the very real risk of a contaminating residue being left on the lens when using the Fischer coating, especially if the detergent concentration runs low in the wash tank, which is not uncommon. By virtue of the intentionally very high acid value of our vehicle, the risk of an insoluble residue is nonexistent for our coating since it is its own detergent, removing itself and other contaminants. The inventors have experimented with such hydroxyl functional nonionic materials (described in Fischer) and found them to be grossly inferior because of this very issue of a pure water insoluble residue that can be difficult to remove.

The EPO reference has nothing to do with temporary films on ophthalmic lens surfaces. Its teaching with respect to the need for acid values over 100 to enable water-solubility is appreciated, but that has no direct nexus with the teachings of Spector or the other references cited in the rejection. The fact that five references are needed to establish the assertion of obviousness of claim 1, and the majority of the references have no direct relationship to each other or to the field of technology of the invention supports the feeling that the rejection is the piecemeal reconstruction of the limitations of the claims by picking and choosing among references, rather than showing a clear path of obviousness, with reasoned teachings in the references leading to intended modifications in the prior art with intended results.

It is also to be noted that both of the newly cited references (EPO 0 819 744 and US 6,093,240 are for permanent resin coatings. They have no application whatsoever to easily removed films. In fact, their objective is directly against easy removal. It is difficult to avoid the inference that the references are being considered because of incidental disclosures of limitations in the present claims, while when considered as a whole, the references completely fail to combine in an orderly manner to instruct practice of the invention.

It is clear that the combination of Spector in view of Fischer, Albrich, Beavers, and the EPO reference fails to teach the present invention as claimed.



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CONCLUSION

The steps of the recited process are not disclosed in Spector in view of Fischer, Albrich, beavers and the EPO reference. The differences between Spector in view of Fischer, Albrich, Beavers and the EPO reference and the claimed invention are not known to be disclosed in the prior art. Additionally, the benefits of the present invention because of those unrecognized differences are not shown in Spector in view of the four reference and provide a benefit to the invention as compared to the practice of Spector in view of the four references. The rejection is in error and must be withdrawn.

The Examiner is respectfully requested to call the attorney of record at 952.832.9090 if any issues might be discussed to expedite the allowance of this Application.

Respectfully Submitted,

ON BEHALF OF THE CLIENT

MARTIN L. HAGE

By His Representative,

Mark A. Litman & Associates, P.A.

COPY OF PAPERS
ORIGINALLY FILED

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described herein, are being deposited in the United States Postal Service, as first class mail, with sufficient postage, in an envelope addressed to: Assistant Commissioner for Patents, Box Amendment, Washington, D.C. 20231 on July 8, 2002.

Mark A. Litman
Name

Signature